Compact Industrial 2-Port 100/1000X SFP to 2-Port 10/100/1000T 802.3at PoE+ Media Converter

IGTP-2205AT

User's Manual

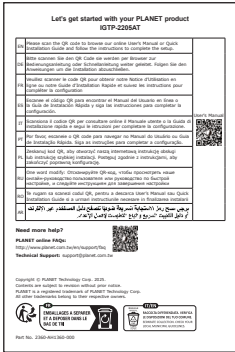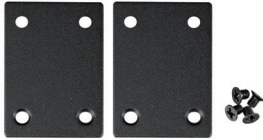# Table of Contents

1. Package Contents

Thank you for purchasing PLANET Compact Industrial 100/1000X to 10/100/1000T 802.3at PoE+ Media Converter, IGTP-2205AT. In the following sections, the term **"Industrial PoE+ Media Converter"** means the IGTP-2205AT.

Open the box of the Industrial PoE+ Media Converter and carefully unpack it. The box should contain the following items:

Industrial PoE+ Media Converter x 1	QR Code Sheet x 1	Wall-mount Kit x 1
DIN-rail Kit x 1	SFP Dust Cap x 2	RJ45 Dust Cap x 2

If any of these are missing or damaged, please contact your dealer immediately; if possible, retain the carton including the original packing material, and use them again to repack the product in case there is a need to return it to us for repair.

2. Product Specifications

Model	IGTP-2205AT
Hardware Specifications	
Copper Port	**2** 10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports with PoE injector function
SFP Port	**2** 1000BASE-SX/LX/BX SFP interfaces Compatible with 100BASE-FX SFP
Flow Control	Back pressure for half duplex mode IEEE 802.3x pause frame for full duplex mode
Maximum Frame Size	9K
LED	System: P1/P2 (Green) Fiber 100/1000BASE-X: LNK/ACT (Green) TP 10/100/1000BASE-T: LNK/ACT (Green) PoE: Power-in-use (Amber)
Dimensions (W x D x H)	30 x 70 x 104 mm
Weight	260 g
Power Requirements	DC 48~54V, redundant power with reverse polarity protection function (>51V DC for PoE+ output recommended)

Power Consumption	**System ON without loading**
	  DC 48V: 1.44W/4.91BTU
	  DC 54V: 1.62W/5.53BTU
	Full loading with PoE
	  DC 48V: 81.6W/278.43 BTU
	  DC 54V: 82.1W/280.14 BTU

Enclosure	IP30 metal case
Installation	DIN-rail or wall mounting
ESD Protection	6KV DC

Cables	10/100/1000BASE-T:
	  2-pair UTP Cat. 3, 4, 5, 5e, 6 (maximum 100 meters)
	  EIA/TIA-568 100-ohm STP (maximum 100 meters)
	100BASE-FX/1000BASE-SX/LX:
	  Multi-mode: 50/125μm or 62.5/125μm optical fiber
	  Single-mode: 9/125μm optical fiber

Power Over Ethernet	
PoE Standard	IEEE 802.3at Power over Ethernet Plus
PoE Power Output	48~54V DC: 30 watts per port
PoE Power Supply Type	End-span
Power Pin Assignment	1/2(+), 3/6(-)
PoE Power Budget	60 watts
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Protocols and Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3z Gigabit Ethernet over Fiber Optic IEEE 802.3x Flow Control IEEE 802.3az Energy Efficient Ethernet (EEE) IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus
Stability Testing	IEC60068-2-32 (free fall) IEC60068-2-27 (shock) IEC60068-2-6 (vibration)
Environment	
Temperature	Operating: -40~75 degrees C Storage: -40~85 degrees C
Humidity	Operating: 5~90% (non-condensing) Storage: 5~90% (non-condensing)

3. Hardware Introduction

3.1 Three-View Diagram

The three-view diagram of the Industrial **PoE+** Media Converter consists of Ethernet interfaces and one **removable 4-pin terminal block**. The LED indicators are also located on the front panel.
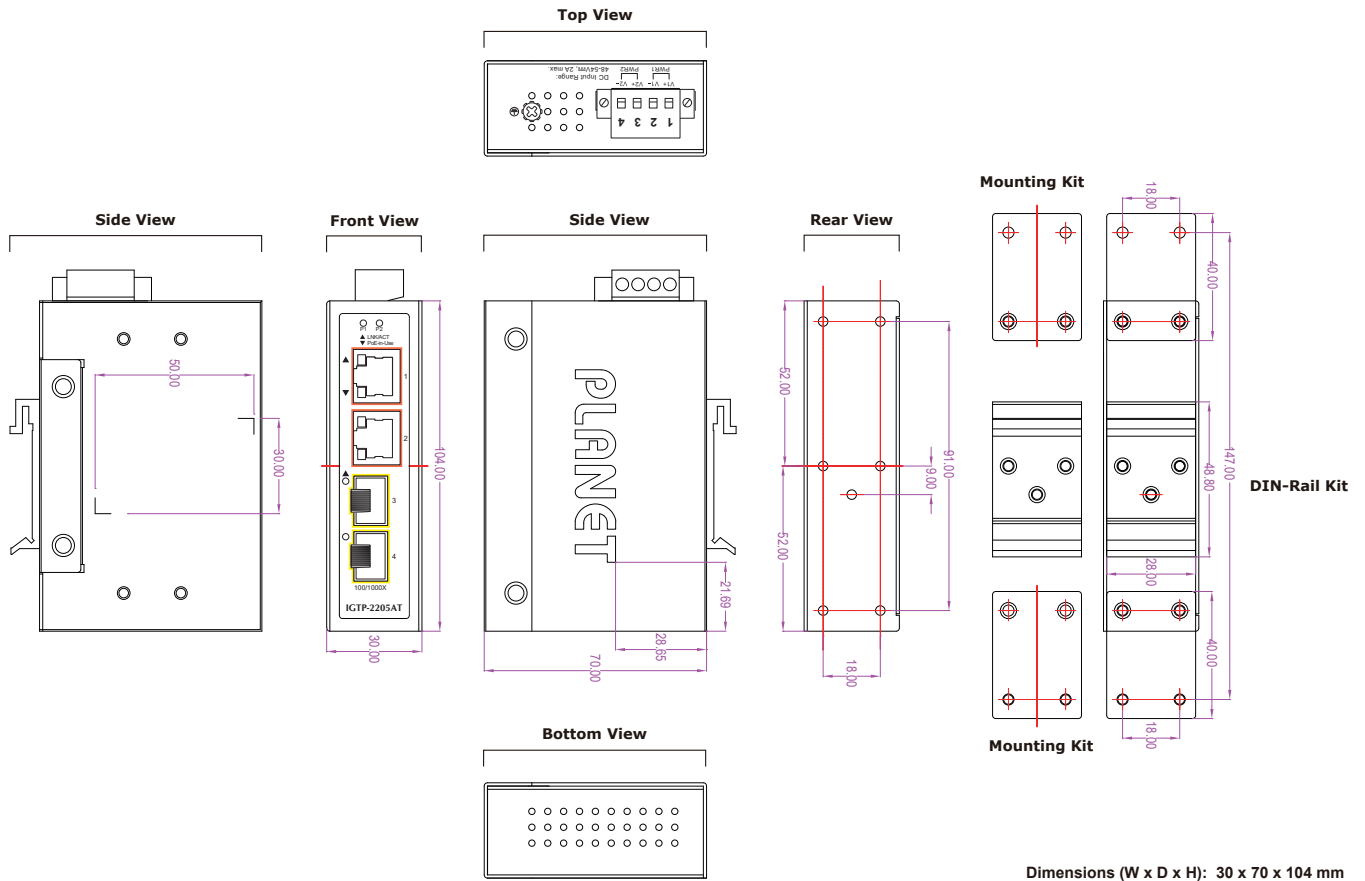

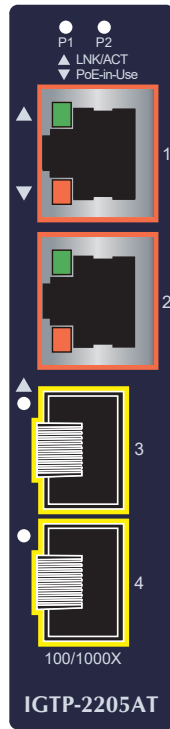**Figure 1:** IGTP-2205AT Three-View Diagram

■ Front View

Figure 2: IGTP-2205AT Front View

3.2 LED Definition:

■ System

LED	Color	Function
P1	Green	**Lights** to indicate the Industrial PoE+ Media Converter has power.
P2	Green	**Lights** to indicate the Industrial PoE+ Media Converter has power.

■ 10/100/1000BASE-T Ports (Ports 1 to 2)

LED	Color	Function
TP LNK/ACT	Green	**Lit:** Indicates that the Copper Port is successfully connecting to the network at 10/100/1000Mbps.
		Blinks: Indicates the Copper Port is receiving or sending data.
PoE-in-Use	Amber	**Lit:** Indicates that the port is providing PoE power to remote powered device.
		Off: Indicates that the port is not providing PoE power to remote powered device.

■ 100/1000BASE-X SFP Ports (Ports 3 to 4)

| LED	Color	Function
Fiber LNK/ACT	Green	**Lit:** Indicates that the fiber optic port is successfully connecting to the network at 100Mbps or 1000Mbps.
		Blinks: Indicates the fiber optic port is receiving or sending data.

3.3 Wiring the Power Inputs

The 4-contact terminal block connector on the top panel of Industrial PoE+ Media Converter is used for 48~54V DC power inputs. Please follow the steps below to insert the power wire.
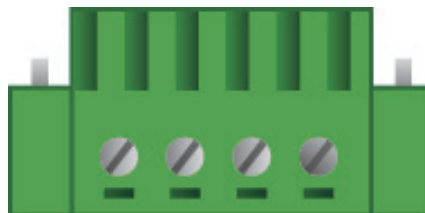
⚠️ **Caution**	When performing any of the procedures like inserting the wires or tightening the wire-clamp screws, make sure the power is OFF to prevent from getting an electric shock.

1. Insert positive and negative DC power wires into contacts 1 and 2 for POWER 1, or contacts 3 and 4 for POWER 2.
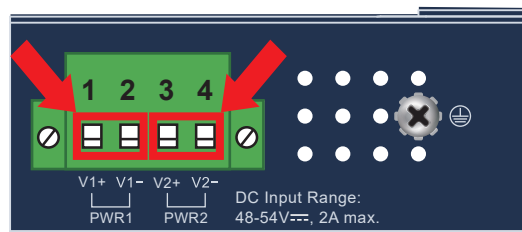
2. Tighten the wire-clamp screws for preventing the wires from loosening.


```
     1    2    3    4
     Power 1  Power 2
     +    -    +    -
```

|	
📝 **Note**	1. The wire gauge for the terminal block should be in the range between 12 and 24 AWG. 2. The DC power input range is 48V ~ 54V DC.

4. Hardware Installation

This section describes the functionalities of the Industrial PoE+ Media Converter's components and guides you to installing it on the DIN rail and wall. Please read this chapter completely before continuing.

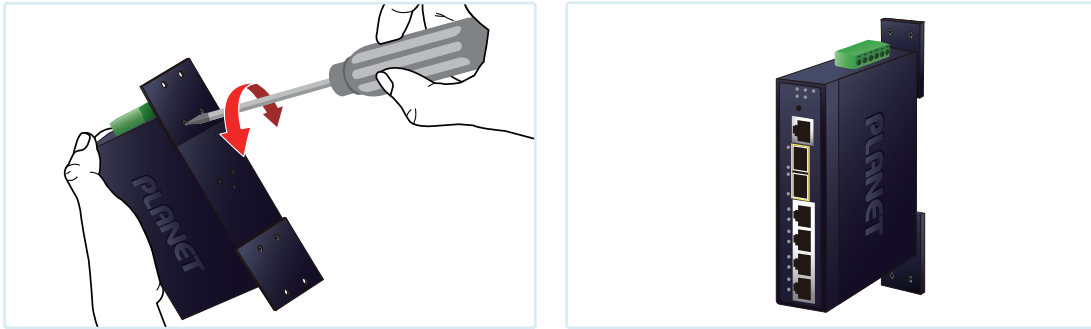|	
Note	This following pictures guide you to installing the device, and the device is not IGTP-2205AT.

4.1 DIN-rail Installation
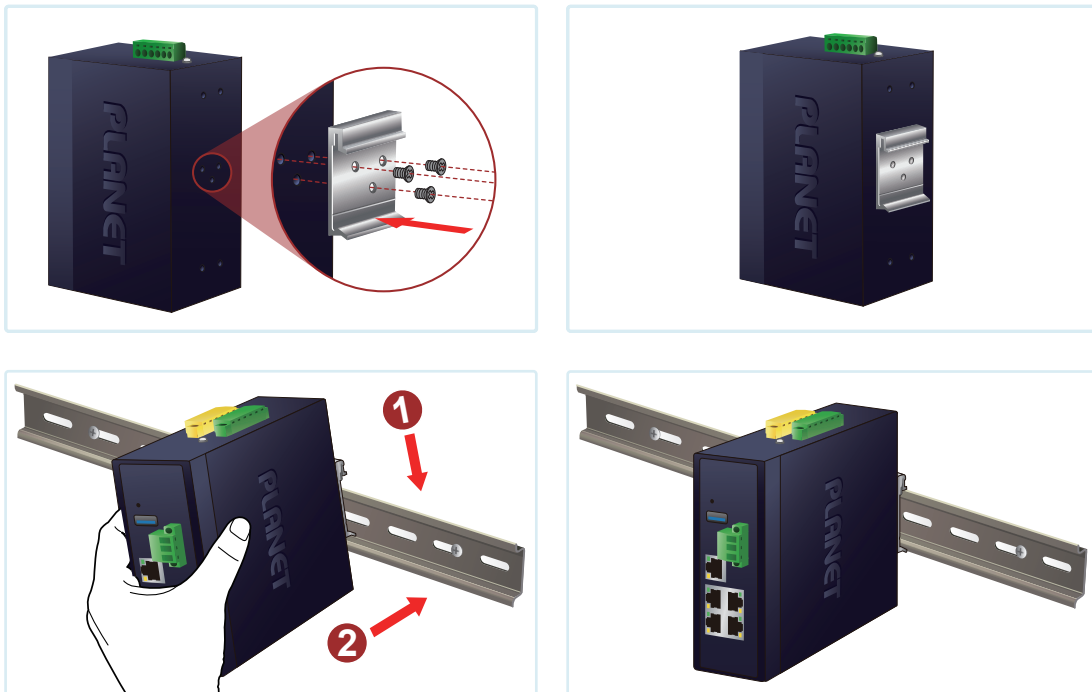
Figure 3: DIN-rail Mounting

Place the bracket on the back of the device and with the given 3 screws, tighten them. Slide the device with the bracket mounted through the DIN-rail to finish the installation.
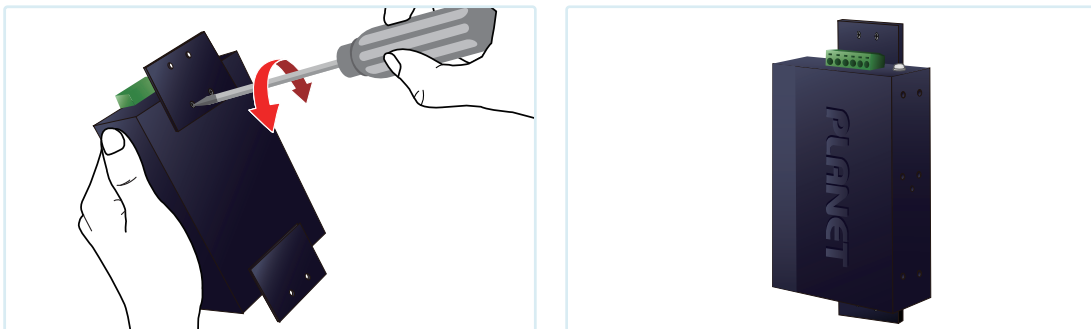
4.2 Wall Mounting

Figure 4: Wall Mounting

Place both mounting plates on the back of the device, and tighten them with the given screws. Then put the device with the plates mounted on the wall, and screw them to finish the installation.

4.3 Side Wall Mounting

Figure 5: Wall Mounting

Place the two mounting plates on the bottom of the device, and tighten them with the given screws. Then put the device with the plates mounted on the wall, and screw them to finish the installation.

⚠ Caution	You must use the screws supplied with the wall-mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.

4.4 Grounding the Device

Users **MUST** complete grounding wired with power cord adapter or power supply source should be connected to a socket outlet with an earthing connection; otherwise, a sudden lightning could cause fatal damage to the device.

⏚ **Earth Ground**
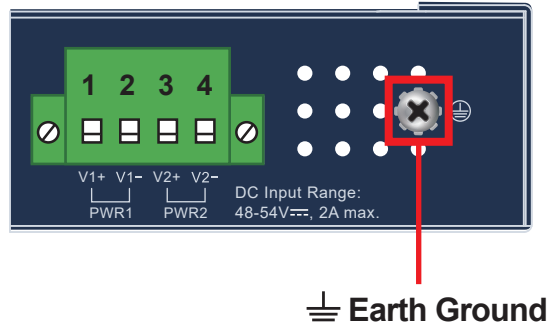
Note	EMD (Lightning) DAMAGE IS NOT COVERED UNDER WARRANTY.

5. Fiber and PoE Installation

The IGTP-2205AT is flexible enough to extend the distance from 550m to 120km. It depends on the 1000BASE-X or 100BASE-FX SFP transceivers. The SFP transceivers are hot-pluggable and hot-swappable. You can plug in and out the transceiver to/from any SFP port without having to power down the Industrial 802.3at PoE+ Media Converter.

If there is any IEEE 802.3at/802.3af devices needed to power on, the IGTP-2205AT can provide you with a way to supply power for this Ethernet device conveniently and easily.

The IGTP-2205AT needs DC 48-54V input to inject the DC power into the pin of the twisted pair cable (Pins 1, 2, 3 and 6).
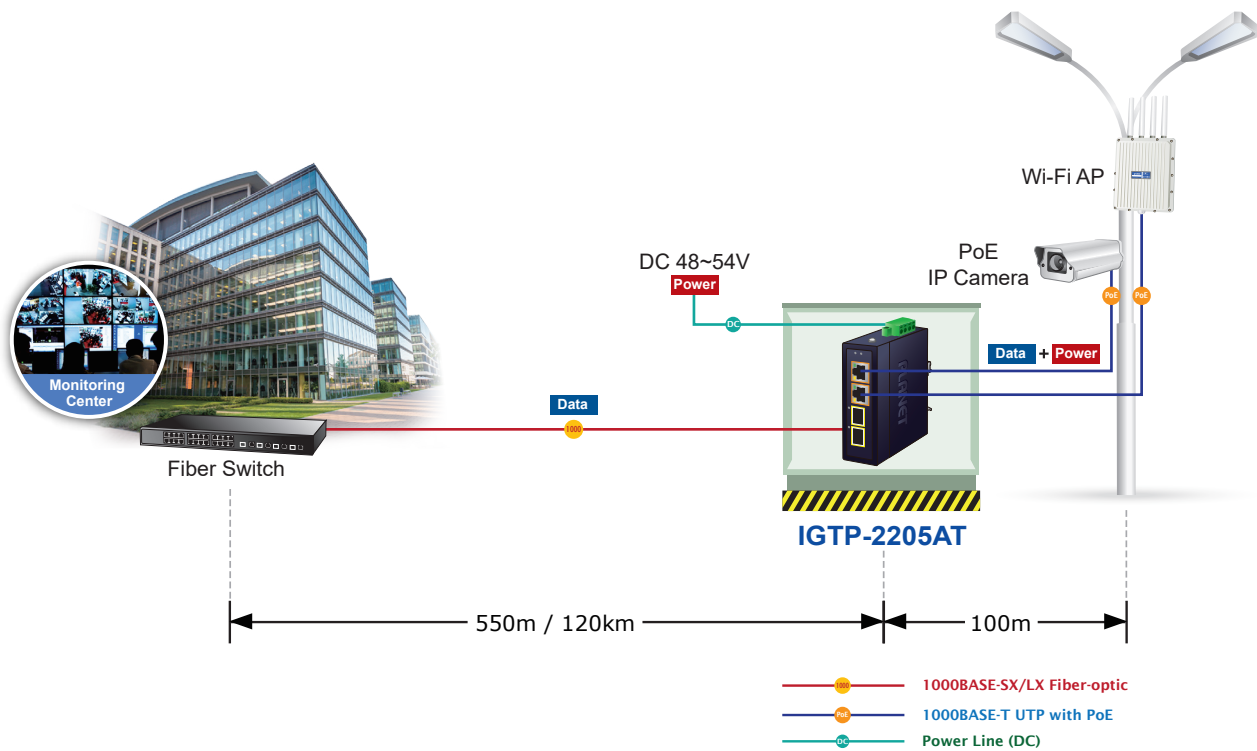
Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource on PLANET web site first to check if it could solve your issue. If you need more support information, please contact PLANET switch support team.

PLANET online FAQs:
https://www.planet.com.tw/en/support/faq

Switch support team mail address:
support_switch@planet.com.tw